



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

lm

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,632	07/05/2001	John Philip Bolash	2001-0511	5129

21972 7590 08/20/2003

LEXMARK INTERNATIONAL, INC.  
INTELLECTUAL PROPERTY LAW DEPARTMENT  
740 WEST NEW CIRCLE ROAD  
BLDG. 082-1  
LEXINGTON, KY 40550-0999

EXAMINER

STOCK JR, GORDON J

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 08/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/899,632	BOLASH ET AL. <i>MC</i>
	Examiner Gordon J Stock	Art Unit 2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-25 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 1-5 and 15-25 is/are allowed.
- 6) Claim(s) 11-14 is/are rejected.
- 7) Claim(s) 6-10 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 05 July 2001 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
 

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a)  The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### *Specification*

1. The Abstract of the disclosure is objected to for the following: on line 5 the phrase, "the two sensor is accurately represents," should read –two sensors accurately represents--. Appropriate correction is required.

### *Claim Objections*

2. **Claims 6-10** are objected to under 37 CFR 1.75 as being a substantial duplicate of **claims 1-5**. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 11-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dearth et al. (4,159,874)**.

As for **claims 11-12**, Dearth in an optical property measurement system and method disclose the following: a specular light sensor (Fig. 3, 11); a first light sensor (Fig. 3, 12); a signal ratio of the specular sensor intensity and a detected first light sensor intensity is determinative of paper optical parameters determinative of type of paper (col. 26, lines 40-65).

As for flux capability, Dearth is silent. However, he teaches that the effective viewing of the transmitted light is 15/16 inches and teaches the reflected light path is coincident with an optical axis with an aperture of 7/8 inches (col. 5, lines 55-67; col. 6, lines 1-30). Therefore, it would be obvious to one skilled in the art at the time that the specular light sensor has a lower light flux capability, for it has an aperture smaller than the first light sensor for transmitted light.

As for **claim 13**, Dearth discloses everything as above (see claim 11). However, he does not mention the distances between the light source and the sensors being at equal radii, an optimal distance and arrangement. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have the distance between the source and sensors be at equal radii, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) In addition, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the sensors and source at equal radii from each other since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70

As for **claim 14**, Dearth discloses everything as above (see **claim 13**). In addition, Dearth demonstrates the sensors and the illumination source are in a semicircular arrangement (see Fig. 3).

***Allowable Subject Matter***

5. **Claims 1-5, 15-25** are allowed.

As to **claim 1**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in a media manipulation apparatus a determination unit to determine a media type

of the media based on a signal ratio of a detected specular light sensor intensity and a detected first light sensor intensity, in combination with the rest of the limitations of **claims 1-5**.

As to **claim 15**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in a media type detector when a signal of a detected first light sensor intensity falls within a linear characteristic range of the first light sensor, a signal ratio of a detected specular light sensor intensity and the detected first light sensor signal is determinative of a media type of the media, in combination with the rest of the limitations of **claims 15-17**.

As to **claim 18**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in a media type detection method determining a media type of the media based on a signal ratio of the specular light sensor intensity and at least the first light sensor intensity, in combination with the rest of the limitations of **claim 18-21**.

As to **claim 22**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in a media type detection method determining if one of the first and second light intensities does not fall within a linear region of a characteristic curve of a light sensor, in combination with the rest of the limitations of **claims 22-25**.

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent 4,750,140 to Asano et al.

U.S. Patent 5,139,339 to Courtney et al.

U.S. Patent 5,754,213 to Whritenor

U.S. Patent 6,590,223 to Chelvayohan

***Fax/Telephone Numbers***

If the applicant wishes to send a fax dealing with either a proposed amendment or a discussion with a phone interview, then the fax should:

- 1) Contain either a statement "DRAFT" or "PROPOSED AMENDMENT" on the fax cover sheet; and
- 2) Should be unsigned by the attorney or agent.

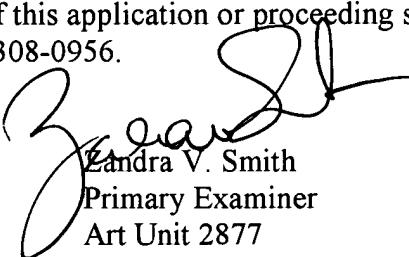
This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

*Papers related to the application may be submitted to Group 2800 by Fax transmission. Papers should be faxed to Group 2800 via the PTO Fax machine located in Crystal Plaza 4. The form of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Machine number is: (703) 308-7722*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gordon J. Stock whose telephone number is (703) 305-4787. The examiner can normally be reached on Monday-Friday, 10:00 a.m. - 6:30 p.m.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

gs  
August 11, 2003



Sandra V. Smith  
Primary Examiner  
Art Unit 2877